

In re: Johan *et al.*
Appl. No.: 09/711,619
Filed: November 13, 2000
Page 3 of 29

(d) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO: 9;

(e) a nucleotide sequence encoding at least 70 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO: 9;

(f) a nucleotide sequence comprising at least 80% identity to the sequence set forth in SEQ ID NO: 7;

(g) a nucleotide sequence comprising at least 80% identity to the sequence set forth in SEQ ID NO: 8;

(h) a nucleotide sequence that is complementary to a nucleotide sequence selected from the group consisting of the nucleotide sequences set forth in (a)-(g); and

(i) a nucleotide sequence that hybridizes under stringent conditions to at least one nucleotide sequence selected from the group consisting of the nucleotide sequences set forth in (a) and (b) and complementary sequences thereof, said stringent conditions comprising hybridization at 37°C in 45% formamide, 1 M NaCl, and 1% SDS and a wash in 1X SSC at 55°C;

wherein said nucleotide molecule encodes a P-glycoprotein that controls plant growth or said nucleotide molecule is complementary to a nucleotide sequence that encodes said P-glycoprotein.

2. (Amended) An expression cassette comprising the nucleotide molecule of claim 1, said nucleotide sequence operably linked to a promoter that drives expression in a plant cell.

3. (Amended) The expression cassette of claim 2, wherein said promoter is selected from the group consisting of tissue-preferred, constitutive, chemically regulatable, and pathogen-inducible promoters.

In re: Johan *et al.*
Appl. No.: 09/711,619
Filed: November 13, 2000
Page 4 of 29

4. (Amended) A transformed plant having stably incorporated into its genome a nucleotide molecule operably linked to a promoter that drives expression in a plant cell, wherein said nucleotide molecule comprises a nucleotide sequence selected from the group consisting of:

- SUB B2
- (a) a nucleotide sequence set forth in SEQ ID NO: 7;
 - (b) a nucleotide sequence set forth in SEQ ID NO: 8;
 - (c) a nucleotide sequence consisting of at least 19 contiguous nucleotides of the nucleotide sequence set forth in (b);
 - (d) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO: 9;
 - (e) a nucleotide sequence encoding at least 70 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO: 9;
 - (f) a nucleotide sequence comprising at least 80% identity to the sequence set forth in SEQ ID NO: 7;
 - (g) a nucleotide sequence comprising at least 80% identity to the sequence set forth in SEQ ID NO: 8;
 - (h) a nucleotide sequence that is complementary to a nucleotide sequence selected from the group consisting of the nucleotide sequences set forth in (a)-(g); and
 - (i) a nucleotide sequence that hybridizes under stringent conditions to at least one nucleotide sequence selected from the group consisting of the nucleotide sequences set forth in (a) and (b) and complementary sequences thereof, said stringent conditions comprising hybridization at 37°C in 45% formamide, 1 M NaCl, and 1% SDS and a wash in 1X SSC at 55°C;

wherein said nucleotide molecule encodes a P-glycoprotein that controls plant growth or said nucleotide molecule is complementary to a nucleotide sequence that encodes said P-glycoprotein.

In re: Johan *et al.*
Appl. No.: 09/711,619
Filed: November 13, 2000
Page 5 of 29

A3
5. (Amended) The plant of claim 4, wherein said promoter is selected from the group consisting of tissue-preferred, constitutive, chemically regulatable, and pathogen-inducible promoters.

6. (Amended) The plant of claim 4, wherein said nucleotide molecule is operably linked to said promoter for the production of antisense transcripts.

A4
10. (Amended) The plant of claim 9, wherein said dicot is selected from the group consisting of soybeans, sunflowers, safflowers, alfalfa, *Brassica* sp., cotton, peanuts and fruit trees.

18. (Amended) A method for modifying the growth of a plant, said method comprising a plant with a nucleotide molecule encoding a P-glycoprotein wherein said P-glycoprotein functions to control growth of a plant, said nucleotide molecule operably linked to a promoter that drives expression of said nucleotide molecule in said plant, said nucleotide molecule comprises a nucleotide sequence selected from the group consisting of:

- AB
SUB
B
- (a) a nucleotide sequence set forth in SEQ ID NO: 7;
 - (b) a nucleotide sequence set forth in SEQ ID NO: 8;
 - (c) a nucleotide sequence consisting of at least 19 contiguous nucleotides of the nucleotide sequence set forth in (b);
 - (d) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO: 9;
 - (e) a nucleotide sequence encoding at least 70 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO: 9;
 - (f) a nucleotide sequence comprising at least 80% identity to the sequence set forth in SEQ ID NO: 7;
 - (g) a nucleotide sequence comprising at least 80% identity to the sequence set forth in SEQ ID NO: 8;

In re: Johan *et al.*
Appl. No.: 09/711,619
Filed: November 13, 2000
Page 6 of 29

(h) a nucleotide sequence that is complementary to the nucleotide sequence of any one of (a)-(g); and

(i) a nucleotide sequence that hybridizes under stringent conditions to at least one nucleotide sequence selected from the group consisting of the nucleotide sequences set forth in (a) and (b) and complementary sequences thereof, said stringent conditions comprising hybridization at 37°C in 45% formamide, 1 M NaCl, and 1% SDS and a wash in 1X SSC at 55°C;

wherein the growth of said transformed plant is modified.

20. (Amended) The method of claim 18, wherein said nucleotide molecule is operably linked to said promoter for the production of antisense transcripts.

24. (Amended) A transformed plant cell having stably incorporated into its genome a nucleotide molecule operably linked to a promoter that drives expression in a plant cell, wherein said nucleotide molecule comprises a nucleotide sequence selected from the group consisting of:

- (a) a nucleotide sequence set forth in SEQ ID NO: 7;
- (b) a nucleotide sequence set forth in SEQ ID NO: 8;
- (c) a nucleotide sequence consisting of at least 19 contiguous nucleotides of the nucleotide sequence set forth in (b);
- (d) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO: 9;
- (e) a nucleotide sequence encoding at least 70 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO: 9;
- (f) a nucleotide sequence comprising at least 80% identity to the sequence set forth in SEQ ID NO: 7;
- (g) a nucleotide sequence comprising at least 80% identity to the sequence set forth in SEQ ID NO: 8;